

REMARKS

By this amendment, Applicants have canceled claim 5 without disclaimer. Applicant reserves the right to pursue the subject matter of this claim in one or more continuation/divisional applications. No new matter has been added by this amendment. Applicants respectfully request entry of this amendment and allowance of the case.

REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

The Examiner rejected claim 5 as allegedly failing to satisfy the written description requirement. Applicants respectfully disagree with the Examiner and submit that claim 5 satisfies the written description requirement. However, in order to expedite prosecution, Applicants have canceled claim 5. Accordingly, this rejection is now moot.

REJECTIONS UNDER 35 U.S.C. § 103

The Examiner rejected claims 1-4 and 6-8 as allegedly being obvious in view of U.S. Patent No. 5,722,502 to Kubo ("Kubo") and U.S. Patent No. 6,645,106 to Goo ("Goo"). Applicants respectfully disagree and traverse this rejection.

The teachings of more than one reference may be considered in combination provided one of ordinary skill in the art would combine the references in that way to solve the problem facing the inventor. *KSR International Co. v. Teleflex Inc.* 550 U.S. ____ (April 30, 2007) at page 4. Applicants respectfully submit that neither Kubo nor Goo disclose or teach each and every element of the claim and these references together do not solve the problems associated with power transfer cut offs in stepped transmission. Thus, these references do not render the present claims obvious.

Kubo does not disclose the step transmission of claim 1. Instead, Kubo discloses a torque distributing mechanism 38 (see Kubo, col. 8, lines 64-66) that is preferably a differential distributing mechanism such as a differential gear. Thus, the differential gear of Kubo is not the same as the stepped transmission recited in claim 1.

Further, the features of the dual motors of claim 1 differ from the Kubo disclosure. For example, Kubo discloses that one output shaft (Kubo, 38b) of the torque

distributing mechanism (Kubo, 38) is connected to the rotor shaft of the generator (Kubo, 24) and the other output shaft (Kubo, 38c) of the torque distributing mechanism (Kubo, 38) is connected to the rotor shaft of the motor (Kubo, 10) (see Kubo, col. 8, lines 50-53). In contrast, claim 1 recites that the rotor shaft of the main motor is connected to the output shaft of the stepped transmission, and the rotor shaft of the auxiliary motor is connected to the output shaft of the ICE by a drive mechanism. Thus, claim 1 recites a stepped transmission and drive mechanism that are different and that achieve different functions that are certainly not obvious.

Kubo does not disclose that when transmission shifting occurs shifting works in auxiliary driving mode, in which the main motor drives the vehicle auxiliary during shifting (see claim 1, paragraph d). As a result, since power transfer from the engine to the wheel is temporarily cut off for a vehicle with stepped transmission during shifting, the hybrid vehicle of instant claim 1 comprising a stepped transmission prevents power transfer cut off by the main motor driving the vehicle when the stepped transmission is shifting. Because Kubo lacks the stepped transmission, this feature of the rejected claim cannot be achieved by Kubo's vehicle. Kubo does not disclose at least feature (d) of claim 1, and so does not render obvious claim 1.

Kubo does not disclose that when the vehicle is under normal driving conditions, the system works in normal running mode wherein the internal combustion engine drives the vehicle independently (see claim 1, paragraph f). In this mode, the vehicle is driven only by the engine through the stepped transmission when the vehicle is in normal driving condition in which the engine works in the region of high efficiency. In such a mode, the main motor does not work. See, for example, the instant specification at Fig. 4g and Fig. 4f. In contrast, Kubo discloses a controller for determining a control mode from multiple control modes, including an SHV mode, a continuous-type PSHV mode and PEV mode. A clutch (Kubo, 36) provided between the torque distributing mechanism (Kubo, 38) and the motor (Kubo, 10) is a characteristic component member to achieve the switching between the SHV mode and the continuous-type PSHV mode. Kubo also discloses detail operation for the continuous-type PSHV mode and the SHV

mode (see Kubo, col. 13). Kubo discloses that in the PSHV mode, when the shaft lever is in drive position, the motor (Kubo, 10) is always supplied with electricity to drive the output shaft (Kubo, 38c). When the continuous-type PSHV mode is switched to the SHV mode by releasing the clutch (Kubo, 36), the output shaft (Kubo, 38c) is also always driven by the motor. Thus, Kubo does not disclose at least feature (f) of claim 1, and so does not render obvious claim 1.

Further, the Kubo clutch (Kubo, 36) differs from the “clutch” recited in rejected claim 1. Kubo discloses a clutch provided between the torque distributing mechanism (Kubo, 38) and the motor (Kubo, 10), wherein the function of the clutch (Kubo, 36) is to switch the operation modes of SHV and PSHV. In contrast, the instant specification provides a “clutch” before the stepped transmission that corresponds to a conventional vehicle with a stepped transmission. Thus, Kubo does not disclose the “clutch” of rejected claim 1, and so does not render obvious claim 1.

Like Kubo, Goo does not render the present claims obvious. Goo discloses a transmission for performing continuously-variable-speed operation (see Figure 1). Goo’s “GTS gear mesh” is used to achieve a non-step speed change between the input and output stage (Goo col. 10, lines 39-67). That is to say, the transmission disclosed by Goo is a type of continuously-variable-transmission (Goo col. 1, line 64), and is not a step transmission as currently claimed. In addition, Goo does not disclose any information for a hybrid or a dual-motor hybrid vehicle. Thus, one of ordinary skill in the art on reading Goo alone or in combination with Kubo would not obtain the currently claimed invention. Applicants submit that the cited reference do not render the pending claims obvious. Accordingly, Applicants request withdrawal of the rejection and allowance of the pending claims.

CONCLUSION

Reconsideration and allowance are respectfully requested.

No fee is believed to be due with respect to the filing of this response. If any fees are due, or an overpayment has been made, please charge, or credit, our Deposit Account No. 11-0171 for such sum.

If the Examiner has any questions regarding the present application, the Examiner is cordially invited to contact Applicant's attorney at the telephone number provided below.

Respectfully submitted,



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